

read them? We would argue that they should not have been included because these few studies are unlikely to represent all eligible non-English language studies published between 1938 and 1990. To determine the volume of non-English language articles in this field, we reviewed the Medline listing for 1989 publications obtained by Carlsen et al. (5). We selected 1989 for this review because this was the last complete year included by Carlsen et al. and was therefore likely to have the least non-English publications during the study period if, as stated by Becker and Berhane, "English dominated the scientific literature" in recent decades. Of the 244 studies included, 58 (24%) were in languages other than English, with sixteen languages represented. Our Medline review suggested that Becker and Berhane's perceived dominance of the scientific literature by the English language may be the "parochial" view, rather than ours. This review also suggested that it is unlikely that the three non-English language studies included by Carlsen et al. (all published before 1972) represented all eligible non-English studies; thus, there was no reason that these three alone should have been included. This application of our exclusionary criteria appears better justified than Becker and Berhane's post hoc exclusion of the study by Varnek (1) simply because "It is clearly not part of the quadratic pattern."

Finally, as noted in our paper, data from additional European studies suggested that sperm densities in Europe tended to be high

early in the study period. Davidson (7), not included by Carlsen et al. (5) although eligible, reported a mean density of $143 \times 10^6/\text{ml}$ in 1949. Further, the mean sperm density from five studies published in 1944–1962, which included 2,456 infertile European men (8–12) was $98.5 \times 10^6/\text{ml}$. It is reasonable to assume that sperm densities from fertile European men would have been at least as high and therefore would not support the quadratic model with low sperm counts in Europe prior to 1975, as proposed by Becker and Berhane in their letter [although not in their own analysis (6)].

Since its publication in 1992, the analysis by Carlsen et al. (5) has been widely discussed; our recent Medline search found it cited 231 times. It is unlikely that further discussion will resolve all remaining disagreements. Nevertheless, the conclusion of a mean decline in sperm density of about 1% per year is quite robust and is the same whether the analysis is based on the original 61 studies or only the 56 studies we included (4). Therefore, we suggest that at this point, efforts might best be spent elsewhere. Studies to rigorously estimate cross-sectional differences in semen quality are currently ongoing in several countries; these should provide reliable information about geographic variation in semen quality. Comparable data on temporal variation must await the results of prospective longitudinal studies.

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Corrections and Clarifications

In the review by Hernandez-Boussard and Hainaut (A Specific Spectrum of *p53* Mutations in Lung Cancer from Smokers: Review of Mutations Compiled in the IARC *p53* Database) published in *EHP* [106:385–391 (1998)], the keys for Figures 6 and 7 were incorrect. The corrected tables appear below:

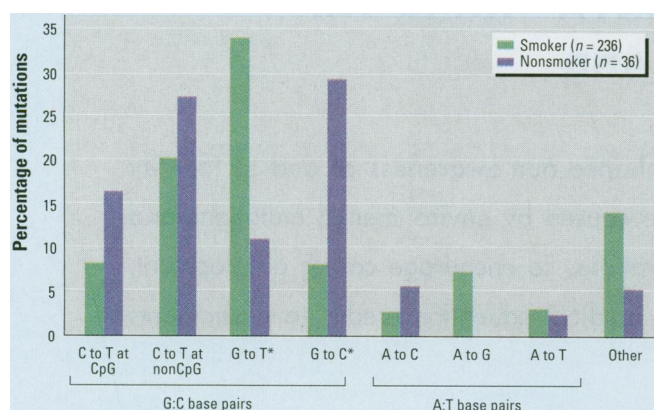


Figure 6. Comparison of the mutation spectra of *p53* mutations in lung cancer of smokers and nonsmokers. Mutations are classified as transitions or transversions affecting G:C base pairs or A:T base pairs. Abbreviations: C to T, GC to AT transitions; G to T, GC to TA transversions; A to C, AT to CG transversions; A to G, AT to GC transversions; A to T, AT to TA transversions; Other, insertions, deletions, and complex mutations.

*Significant at $p < 0.001$.

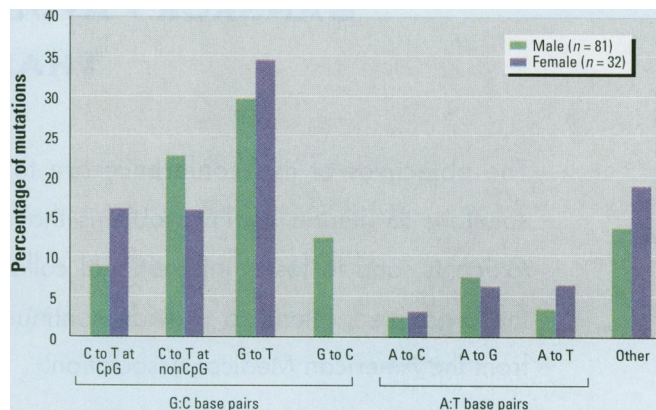


Figure 7. Comparison of the mutation spectra of *p53* in lung cancer between male and female in the IARC *p53* database. Mutations are classified as transitions or transversions affecting G:C base pairs or A:T base pairs. Abbreviations: C to T, GC to AT transitions; G to T, GC to TA transversions; A to C, AT to CG transversions; A to G, AT to GC transversions; A to T, AT to TA transversions; Other, insertions, deletions, and complex mutations.

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